

that the movements of the thorax are muscular movements, and that whatever change is induced in the hard parts is referable to prior change in the soft parts.¹ If we attend to the inspiratory and expiratory movements in our own persons, and convert what are naturally involuntary movements into voluntary ones, we find that in inspiration we draw in the air by a vital act, and that in expiration we expel it by a vital act. This is proved by the fact, that if we interfere either with inspiration or expiration, the movements are arrested. If we make a forcible inspiration, we must also, if we would avoid discomfort, make a forcible expiration.

ARTICLE II. — *Case of Pregnancy and Labour complicated with Diabetes Mellitus.* By J. MATTHEWS DUNCAN, M.D.

I PUT on record the following notes, on account of the rarity of the case. They are very imperfect, partly from loss of manuscript, partly from the circumstance that the patient was under the care of several physicians, at different times. Her regular physician was Dr Bell, of St Andrews, and to him I am indebted for the greater part of the details here given to the profession.

The glycosuria in this case was not of that physiological or pathological kind occurring during pregnancy or lactation; about which, of late years, much has been written but little distinctly made out. In these conditions the quantity of sugar alleged to be observed in the urine is very small, and cases would not properly be called examples of diabetes mellitus. But, in the case now under description, the sugar in the urine was copious, and diabetes mellitus is the proper designation of the condition of this secretion.

Mrs N., aged nearly thirty years, was married when twenty-six years old, and her present pregnancy (1871) is the third. She has a delicate but healthy appearance, and regards herself as, on the whole, a healthy woman.

Her first child was born at the full time, on 23d August 1869. It was male, and decomposed. Judging from the symptoms in the mother, Dr Bell thought the foetus had died about a month before its expulsion from the uterus. After this confinement she suffered from successive boils; but, in other respects, made a good recovery. The urine was not specially examined.

Her second child, a male, was born about the full time on 28th November 1870. It was also in a decomposed state, the skin being purple and the cuticle peeling off. The placenta was found

¹ Since the above was written, Dr Arthur Ransome has assigned an outward, forward, or pushing movement to the chest in inspiration; and an inward, backward, or pulling movement in expiration. These movements are seen to most advantage in women and children, where the ribs and costal cartilages are softest.—*Proceedings of the Royal Society*, 21st November 1872.

to have large fatty nodules and smaller fatty masses in it. During the last two months of this pregnancy she had taken perchloride of iron and chlorate of potass in moderate doses. There were no boils after this confinement, and she made a good recovery. The urine was not specially examined.

In May 1871 she was sent to Langen-Schwabach, and was under the care of Dr Genth. While residing there she became pregnant a third time. On one occasion, while there, she had, when at stool, an attack of violent abdominal pain, with alarming pallor and faintness, which all soon passed off under simple treatment.

About the end of October she was at Harrogate, under Dr Myrtle's care. There she was suddenly seized with partial amaurosis of the right eye. Mr T. Pridgin Teale, from Leeds, visited her, and had the urine examined, and it was found to be diabetic. He examined the eye by the ophthalmoscope, and saw about the central spot of the retina a large pear-shaped clot. He supposed that a blood-vessel had given way and allowed the collection of blood to escape. The optic disc was natural. Mr Teale attributed the hæmorrhage to the diabetic state of the blood.

In the middle of November I saw her in Edinburgh, and described her as thin and wasted-looking. Vision of right eye still imperfect, but improving. Tongue clean but dry. Much thirst. Pulse good. Temperature 95·6°. Skin not very dry, not scurfy. Uterus large for the period of pregnancy, tight, and unusually irritable, handling bringing on strong contractions very readily. Urine, acid; sp. gr. 1039; no albumen; quantity not extremely large; contains abundance of sugar, as shown by the ordinary tests. The case to be watched, and ordinary diabetic treatment carried on by diet. An iron and chlorate of potass mixture was also ordered. She was at this time about the sixth month of pregnancy.

On the night of the 14th December, Dr Bell was sent for. He found Mrs N. complaining of intense pain in the abdomen, which, coming on suddenly, awoke her from sleep. Fancying it was cramp or spasm, she had used hot fomentations, but they had given no relief. The pain was diffused over the abdomen, and apparently in the uterus, which was not tense or hard. There was no retching nor diarrhoea, and no cause for the attack could be discovered. The pulse was small and rapid; the face anxious. Opiates in various ways and chloroform inhalation were tried, but without lasting good effect; so, likewise, a turpentine stupe. Soon the feet and hands became cold.

On the night of the 15th December I saw her, and found her in a most alarming state, with an almost moribund appearance. Coldness of surface. Pulse very quick and weak. Face pallid. Great pain in abdomen, chiefly in right flank; no great tenderness.

In consultation, it was resolved to induce premature labour at once. So far as we could judge, the patient was rapidly dying; evacuation of the uterus might give some relief. The cervix uteri

was dilated by india-rubber fiddle-shaped bags with great difficulty, there being persistent spasm of the external os. When it was of the size of about $1\frac{1}{2}$ inch in diameter, the child was turned by external and internal manipulation, without introducing the hand; a foot was seized, the membranes ruptured, and the delivery was gradually effected early in the morning of the 16th December.

After delivery there was a lull in the symptoms; pain was less; quietness was for a time maintained; but no substantial improvement occurred. She felt better, and was astonished when Dr Bell did not confirm her own ideas on this point. Movement was painful. There was occasional vomiting of dark-green fluid. She was clear in mind, and conscious till nearly the last. The symptoms were diligently used as guides for varied and assiduous treatment. On the night of the 16th she became unconscious, and died on the 17th.

Post-mortem examination by Dr Bell discovered in the lower part of the abdomen some patches of peritoneal congestion, and a small quantity of serum, tinged brownish-red, in the peritoneal cavity. There were large soft decolorized clots in the right side of the heart. No other morbid appearances were observed in the chest and abdomen.

ARTICLE III.—*The Sensory and Mental Deficiencies of Idiots.* By W. W. IRELAND, M.D., Medical Superintendent of the Scottish National Institution for the Education of Imbecile Children, Larbert, by Falkirk.

(Read to a Meeting of the Medico-Psychological Association, at Edinburgh, 21st November 1872.)

THE essential deficiency of idiocy consists in want or hebetude of the intellect, not in imperfection of the senses. Nevertheless, it is clear that the want of two or more of those senses most employed in perception, sight, hearing, and touch, would produce a result closely resembling idiocy. This has been called the idiocy of deprivation, of which I have already given examples. A similar result would be produced in a human being brought up in a solitary and dark prison, where sight and hearing could not be exercised, as was exemplified in the singular case of Casper Hauser, whose sad and mysterious history is no doubt known to you. A being destitute of sight, hearing, and touch could never so connect itself with the outer world as to show anything beyond the feeblest mental manifestations, and would thus be regarded as an idiot. Indeed, long ago, uneducated deaf mutes were regarded by the laws as idiots; and, without education, a deaf mute in many things resembles an idiot. But, now, an educated deaf mute can inherit property, deliver evidence, and enjoy the usual rights of rational beings. In idiots the senses are often more or less defective.